

B·A·R·G NEWS

September 90



© Monthly Newsletter of the
Ballarat Amateur Radio Group

PRESIDENT	Ian McDonald	VK3AXH		311317
IMH PAST PRESIDENT	Gordon Cornell	VK3KGC	392427	391135
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TECHNICAL OFFICER	Dick Antosiewicz	VK3AEX	323273	321818
MEMBERS REP	Mary Curnow	VK3NMC	301927	
	Reg Carter	VK3CAZ		

OFFICERS AND COMMITTEES.

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PROPERTY OFFICER	Dick Antosiewicz	VK3AEX	323273	381818
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	Geoff Smith	VK3ADB	332112	321719
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	Ian McDonald	VK3AXH		311317
	Dick Forrester	VK3VU	357663	391001
	David McConnell	VK3YNB		
NEWSLETTER EDITORS	Bob Terrill	VK3BNC	395317	391001
	Harry Hekkema	VK3KGL	357563	391001

REPEATERS: VK3RBA - 146.750 Voice. Mt. Buninyong (ch.3)
 VK3RBS - 146.900 Voice. Smeaton Hill (ch.6)
 VK3RPC - 147.575 Packet. Mt. Warrenheip.

CLUB NET: ON 3.5610 Mhz. SSB +/- QRM.
 Every Thursday at 8PM.

MEETINGS: Held every last Friday of
 month at 7.30PM. in the
 Ballarat Community Education Centre
 Hopetoun St.
 Ballarat

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MINUTES OF GENERAL MEETING HELD 31st AUGUST 1990.

MEETING OPENED by President Ian VK3AXH at 7.45pm with 31 members in attendance.

APPOLOGIES VK3 AEX, KIT, DS, NMC, LDC, CFH, VGS, XEX, SE, CCB, BNC, KGL, DOK, NIZ, CUH..

MINUTES of previous meeting as circulated were confirmed. CAZ/JAT

CORRESPONDENCE WIA seeking details of Club meetings etc.
WIA giving notice of proposed get together with Executive.
Correspondence received CJB/KAW.

TREASURERS REPORT. VK3 TOM acting Treasurer. General a/c \$1120.33. VS&L 3544.48.
Accounts for \$138.72 passed for payment.
Treasurers report received. TOM/JAT.

QSL BUREAU No cards received since last meeting.

CLUB NET Running well with Reg CAZ co-ordinating.

EDUCATION Ian AXH reported that 16 Candidates sat for the July examinations.
DOTC require that all morse sending exams be recorded in future.

TECHNICAL Merv KAW reported that the new Power Supply for RBA has been installed, the 432 mhz Beacon is operating, the cabinet for the UHF repeater has been received and a new Packet repeater should be in operation shortly.

HAMVENTION Saturday night dinner will be held at Red Lion Hotel, advance booking with Kevin WN is advisable, Guest speaker will be John Day on Packet Radio. Raffle prize will be a CD Player second prize \$50.0 Voucher. There will be an Antenna GAIN competition for 2mtr and 432mhz Yagi antennas.

WICEN Gordon KGC reported that antennas for use in emergencies would be installed at the Police Headquarters in Camp St. HF, VHF & UHF.
A WICEN DISPLAN meeting will be held at ADBs QTH on 14th September.

GENERAL BUSINESS. Badges showing Call Sign and name are available free of charge to all members. Gordon KGC has them and all members will be required to wear them at meetings to assist us to get to know one another, but be warned if you forget it was moved by XOA seconded DAC that you will be fined 20c, proceeds from fines to go to Pennyweight Park Spastic Ctr.

In view of the high cost of QSL cards Gordon KGC is trying to get a sponsor such as the Tourist Authority to supply cards for members use.

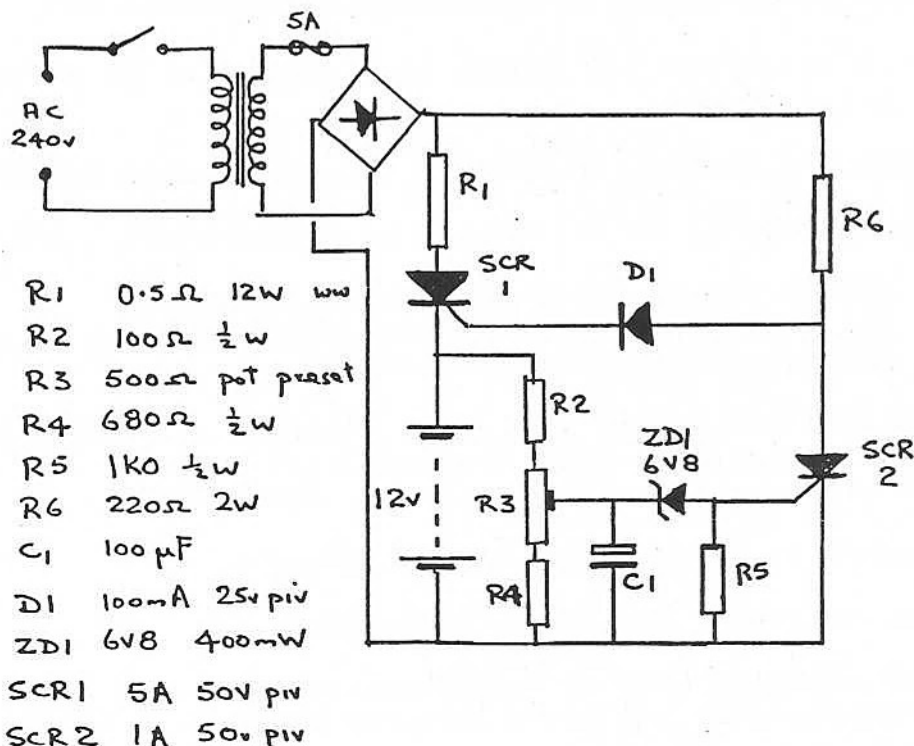
A visit to Ansett's Flight simulator will take place on 18th September. It was moved by TI seconded CFB that the cost of the bus will be paid for by the Club as has been the policy on the two previous visits. carried.

As from the November issue of the Newsletter we must make alternative arrangements for photocopying. Anyone having access to a copier is requested to contact BNC or KGL.

Ian AXH brought in a Morse QRP Transmitter as published in the Newsletter. If anyone would like to construct this simple project please contact Ian AXH or Bob BNC and they will be pleased to assist you.

MEETING CLOSED at 8.55pm.

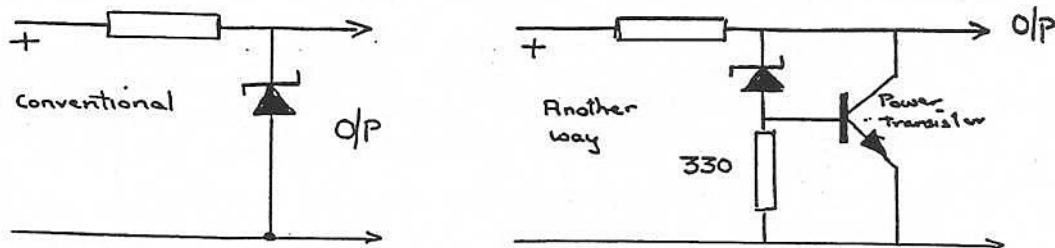
73s Jim CFB.



If like me you tend to forget to check the state of charge of your standby battery for the rigs you are in good company and might like to try this circuit. When first connected to a battery of less than the desired output voltage as determined by the setting of R_3 there will be no gate current to SCR_2 so it is non conducting and therefore SCR_1 is triggered on via D_1 and R_6 at the start of each halfcycle and a high current flows via R_1 and the SCR to the battery. R_1 is adjusted if necessary to give the desired charge rate. As the battery reaches a full charge state it will cause SCR_2 to conduct by triggering via ZD_1 . As SCR_2 comes on it pulls the junction of D_1 and R_6 towards the lower supply rail removing the gate supply to SCR_1 and so the battery charge current reduces to zero. As the battery terminal voltage decays with the cessation of charging it will turn off SCR_2 due to the zener diode ceasing to conduct. This will permit the main SCR to be triggered again and "top-up" the battery. The battery will "cycle" by a few tens of millivolts around the value set by R_3 . Setting up is merely a matter of connecting a fully charged battery across the circuit and adjusting R_3 to just cease chaging.

Try this one.

If you need a 10 watt zener diode or maybe a 50 watt one think about this idea.



The power transistor does most of the work and the only complication is that the stabilised voltage is increased by approximately 0.7 volt. However it is generally stabilisation rather than an exact voltage that is needed. Selection of a slightly lower nominal value zener is usually possible.

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PRESIDENTS NOTE

It appears that two of our members are going through a bit of a bad trot lately in regard to health. Reg VK3 CAZ and Neil VK3 KQQ have both had stints in the Coronary Care Unit at Ballarat Hospital. Lets hope its not too long before both are on the mend again.

I am advised that the trip to Tullamarine was a complete success and all had an interesting experience at the flight simulators. How about one of the participants writing of their experience and presenting it to the editor for the next magazine.

We are getting to some important events now and I hope to get support from members for the upcoming JOTA, WICEN and HAMVENTION.

Dont forget the antenna construction contest. Have any members built the QRP CW transmitter yet ?

73's Ian VK3 AXH

SCRAMBLE RESULTS -- AUGUST

VK3DCS	50 POINTS
VK3KGC	88 POINTS
VK3TOM	88 POINTS
VK3XOA	40 POINTS
VK3AXH	38 POINTS

" DONT FORGET TO BRING IN YOUR LOGS TO BE IN THE RACE !!!!!!!!!!!!! "

TECHNICAL REPORT

VK3RBS: NOW ALL OK. GOOD REPORTS FROM ALL USERS
VK3RMB: NOW RUNNING OK - ANTENNA NEEDS A CHECK TO SEE IF OK BUT WILL WAIT TILL BETTER WEATHER.
VK3RBA: POWER SUPPLY NOW INSTALLED AND WORKING WELL. CAVITIES NEED PERFORMANCE MEASUREMENTS AND ANTENNA CHECKS AGAIN WHEN THE WEATHER IS BETTER.
VK3RPC: THIS REPEATER IS STILL UNDERGOING A REBUILD/MODS AND NEW XTALS FOR THE FM828. SEEMS TO BE SOME PROBLEMS WITH PERFORMANCE WITH APRA SUPPLIED TNC (VERY EARLY MODEL). MORE WORK REQUIRED HERE TO TRACE THE SOURCE OF THE PROBLEMS BUT SUSPECT DESIGN PROBLEM AS NEW MODELS HAVE NEW LAYOUT/DESIGN AND MUCH BETTER PERFORMANCE. MORE INFO ON THIS IN THE NEXT MAGAZINE.

NOTE:- USERS OF PACKET SHOULD CHANGE THEIR OPERATING HABITS FOR LOCAL CONTACTS. PLEASE DO NOT USE THE REPEATER VK3RPC, JUST QSY TO ONE OF THE OTHER PACKET CHANNELS OF EVEN 70CM. 144.8 - 925 MHZ AT 25KHZ STEPS. THE PRESENT CAHNNEL LOADING OF 147.575 MHZ IS UNACCEPTABLE AND CAUSING MAJOR THROUGHPUT PROBLEMS.

IT IS ALSO NOTICED THAT MANY PACKET USERS ARE GROSSLY OVER DEVIATING THEIR TRANSMISSIONS. PLEASE DO A COMPARISON WITH VK3RPC (LOUDNESS OF AUDIO) AND ADJUST YOUR TX TO THE SAME. THE IDEAL LEVEL IS 3 KHZ DEVIATION. THE PROBLEM WITH OVER DEVIATION IS BLOCKS RECEIVER PERFORMANCE WHICH CAUSES FRUSTRATION BY PACKET USERS. IT IS HOPED THAT A SERVICE WILL BE OFFERD IN THE NEAR FUTURE TO GET ALL USERS WITHIN THE REQUIRED RANGE OF DEVIATION. KEEP A WATCH ON THE MAGAZINE FOR DETAILS.

VK3RBU: THE UHF REPEATER IS PROGRESSING WELL. HOWEVER A NEW DIPLEXER IS REQUIRED TO ENABLE ONE ANTENNA FOR TX/RX IS NEEDED. THE CABINET IS IN HAND AND IS BEING FITTED OUT BY VK3AEX.

73'S MERV VK3KAW

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AMATEUR RADIO EQUIPMENT FOR SALE

The following items are offered for sale on behalf of Marcia, the wife of the late Tim Palmer (VK3DIR). Please contact me for inspection or sale on (053) 316905 after hours. Some prices listed may be negotiable.

Trevor Remington (VK3YJT) 30/8/1990

1	Trio	TS120S	HF Transceiver	\$ 650
1	Kenwood	R-1000	Communications Receiver	\$ 500
1	ICOM	IC-2AT	2m FM Hand-Held Transceiver with charger, spare battery pack, antennas external microphone.	\$ 350
1	Kenwood	AT 120	Antenna Tuner	\$ 300
1	Shure		Desk Microphone	\$ 50
1	Standard		Hand Microphone	\$ 25
1	Home Brew		13V 4A Power Supply	\$ 70
1	Home Brew		12V High Current Power Supply	\$ 100
1	ARLEC		12V 1A Plug-Pak Charger	\$ 35
2	Powersonic		12V 26AH Gell-Cell	\$ 70
1	Lanson (?)		2m 5/8th Magnetic Base Whip Antenna	\$ 45
1	Home Brew		10 Element 2m Yagi (needs minor repair)	\$ 30
1		TH3	HF Antenna	\$ 250
1		Ringo	2m Antenna	\$ 50
1			Multiband HF Vertical Antenna	\$ 150
1	Scope	Miniscope	Soldering Iron	\$ 40

FOR SALE

HIGH QUALITY CHINON 5 1/4" 360K

DISK DRIVE. LITTLE USE

\$60.00

DICK VK3VU 053-357663 (AH)

03-8238226 (BH)

WANTED

CIRCUIT DIAGRAM FOR 1930 MODEL "MONARCH"

BROADCAST RECEIVER. MODEL No GF-548

USES 1A7 - 1P5 - 1N5 - ? - 1Q5 OCTAL VALVES

DICK VK3VU 053-357663 (AH)

03-8238226 (BH)

IF ANY CLUB MEMBERS WANT A QSL CARD FROM MY OPERATIONS IN THE FOLLOWING COUNTRIES THEN I STILL HAVE THE LOGS AND SOME CARDS LEFT.

YOU CAN CONTACT ME AT 201 DARLING ST BALLARAT 3350 OR VIA THE CLUB QSL BUREAU

FIJI	3D2RF
TONGA	A35RF
NIUE ISLAND	ZK2BA
WESTERN SAMOA	5W1DV

DICK FORRESTER
VK3VU

FOR SALE.

Icom 502A 6m SSB. Handbag Wireless. Good condition.

Icom 202A 2m SSB Handbag Wireless. It receives but no transmit. Offers to David VK3YNB.

Icom 202A 2m handbag Wireless. \$100.00. Contact Ron VK3XOA. 356017.

CARE OF CO-AXIAL CABLE IN STORAGE

When you pick up that bargain length of coax for that aerial farm that one day will grace your place be careful how you store it.

Remember that all plastics will to a greater or lesser extent "flow" and that can give rise to all sorts of problem.

If you coil it up in too small a diameter and leave it for too long that can cause the inner conductor to move out of its correct alignment in the di-electric and that can cause changes in the "surge impedance" let alone its effect on the ability of the cable to stand up to the voltages applied.

The problem of "creep" of the centre conductor can be minimised by keeping the coil of coax as big a diameter as possible and storing the cable in as cool as possible a place.

Ideally you can store it in a loose flat "spread" remembering of course to seal the ends of the cable to prevent the ingress of moisture which can change a piece of coax into a very good example of a "dummy load" which is not what you want it to be.

Well I wonder how many members had a go at the Qrp transmitter in last month's magazine? If you have it up and going then I guess that you have been wondering about a suitable transmatch [just to use a term]. The other problem is a suitable tune up - come swr indicator for such a low powered rig.

The output indicator come swr meter is readily fixed by the use of a simple bridge [wheatstone] fixed for 50 ohm output. The output impedance of the simple transmitter is designed for 50 ohms so what we need is a bridge that will indicate to us when the antenna system "looks" like 50 ohms.

Once again there are no special parts needed and the "junk box" should be inspected before any steps are taken to purchase new bits. The meter can be taken from an old tape recorder or transistor radio, something that reads anywhere from 50 to 250 microamps.

The diode is a germanium type [turns on at 0.2volt], and the switch can be either a toggle type or a slide switch.

Assembly can be in with the transmitter or alternatively mounted with the antenna transmatch. I prefer with the antenna tuner as this then becomes a "stand alone" instrument and is then available for other projects.

On its own, the unit can be used as a tune up indicator by simply connecting up the transmitter to it and tune for maximum indication. However I would suggest that a proper low power "power meter" be used as this will "terminate" the transmitter in its correct load. This we will cover a little later in the series.

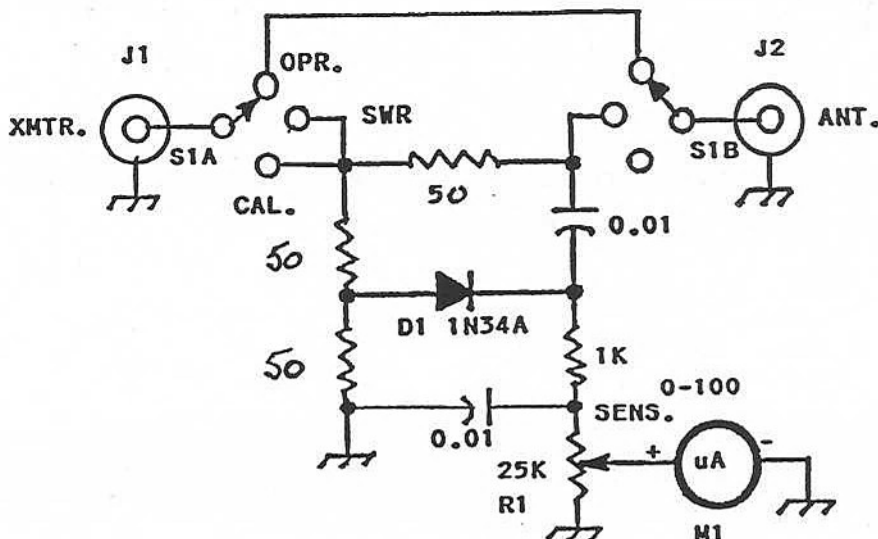
The 50 ohm resistors consist of two 100 ohm 1 watt resistors in parallel which will give enough power dissipation for Qrp operation in fact I use this little device for the TS120 on my portable operations.

The rest of the construction is straight forward and should not pose any problems.

It is important to realise that this is a low powered device and you must adjust the output power of your transmitter to around 2 or 3 watts before using this bridge.

To use the bridge set to calibrate and adjust the sensitivity control R1 for full scale on the meter. Then switch to "SWR" and adjust your antenna coupler for a minimum reading. With this done then switch to the operate position and you are in business. Your transmitter is now "looking" into a 50 load.

Next month we will have a look at the antenna coupler. This little device will match both balanced and unbalanced lines to a wide collection of antennas. So hop in and build this up and look forward to the good weather and operating portable. 73's Bob VK3BNC.



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DX AND QSL INFORMATION

Hi again, I hope all are joining in the chase for some of those nice DX stations that are on the air each week. There has been a feast of calls waiting to be worked. One evening while out and about in the mobile I worked ,UA'S, VU, OM, W's, FR5, FG, IK's, JA's, YU, VO1 and a P29, most of these stations were at least 5 by 8 type signals, one IK station was a 4 by 6.

Over the last month or so, I have worked a number of G stations with QSO's that lasted at least half an hour with 5 By 8 type signals into the mobile.

That smorgasbord of calls I spoke of in the last DX and QSL information page, has not slowed down, almost every day there is a host of new ones to be worked.

One of the calls that you may have worked is the OM prefix, this is to celebrate the 60th anniversary of the first CZECH Amateur licence in their country.

Some QSL information again this month to help you out.

3V8PA.....QSL via.....F6IPA.

5R8JS..... " "F5IL.

EN3P..... " "UA3DPF.

EO3AAS..... " "UZ6AZR.

GJ3FKW..... " " Bureau.

LXØSNJ..... " " Bureau.

LX2AP..... " " Bureau.

4k4POL.....QSL TO UAØKCL, VIA the Bureau.

6V1A..... QSL to Box 971, Dakar, Senegal, Africa.

FR5DD.. TO: Jean Pierrat, 8 Ave de Badamiers, Les Filaos, F97434, Saint Gilles, les Bains, Reunion Island.

9H1GS..... QSL via the Bureau to VK2AKP.

C6AFW...Farley, Box N-1316, Nassau, Bahamas.

OM7LO..... QSL via OK3LO ,Bureau.

YJ8RN.....Rod Newell, Box 905, Port Vila, Vanuatu.

7Q7CW.....QSL to QTH DK7PE.

9Q5TE..... " " SMØBFJ.

I hope these will be of some help to those who may have worked an odd one or two, good health and DX and fast QSL returns.

73's de VK3CCB

CLIFF.

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```

10 REM *** PROGRAM 'QSL CARD
20 REM *** PRINTS CARDS FOR BUREAU
30 REM
31 RESTORE
35 PRINT
40 REM *** TYPE IN DATA FOR PRINTING
50 INPUT "CALL";A$
60 INPUT "NAME";B$
70 INPUT "COUNTRY";C$
80 INPUT "DATE";D$
90 INPUT "TIME";E$
100 INPUT "FREQUENCY";F$
110 INPUT "SIG. STRENGTH";G$
115 INPUT "ANTENNA";H$
120 INPUT "MODE";I$
125 INPUT "POWER";T$
130 REM *** THREE LINES OF PERSONAL REMARKS
140 INPUT "REMARKS";J$
150 INPUT "REM.2";K$
160 INPUT "REM.3";L$
170 INPUT "ARE ALL DETAILS CORRECT ? -- Y/N";M$
180 IF M$="N" GOTO 50
185 IF M$="Y" GOTO 190
190 REM PRINTER CODES
200 ESC$=CHR$(27)
210 LPRINT CHR$(27);"8"
220 LPRINT CHR$(14)TAB(3)"VK3TI"
230 LPRINT TAB(30)CHR$(14);A$
240 LPRINT CHR$(15)"PAUL SARRE, 79 CLUNES ROAD, "
250 LPRINT "CRESWICK, VICTORIA, 3363"TAB(35);C$
255 LPRINT " A U S T R A L I A "
260 LPRINT
270 LPRINT "To Radio "A$;" / ";B$
280 LPRINT "Confirming QSO on ";F$;" M/H"
290 LPRINT "Date ";D$;" Time ";E$;" UTC"
300 LPRINT "Your Signal Strength Was ";G$
305 LPRINT "Txcr Was Icom 735"
310 LPRINT "Antenna Was ";H$
315 LPRINT "Mode Was ";I$
320 LPRINT "Power output Was ";T$;" Watts"
325 LPRINT " 73's From Paul, VK3TI..."
330 LPRINT "Member A.R.R.L & W.I.A...."
340 REM *** STANDARD LINE WITH CONTACT'S NAME
350 LPRINT "Thanks ";B$;" for the contact."
360 LPRINT J$
370 LPRINT K$
380 LPRINT L$
390 LPRINT CHR$(18)
400 INPUT "DO YOU WISH TO CONTINUE ?---Y/N";ANS$
410 IF ANS$="Y" GOTO 50
415 IF ANS$="N" THEN END
420 END

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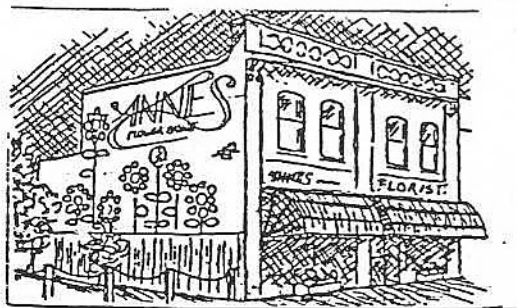
This program is an adaptation of a program found somewhere..
 I'm sorry the appropriate credit cannot be given. It is written
 in GWBasic (Microsoft Inc) and therefore all lines can be
 successfully butchered to suit your own needs and personal
 details. HAVE FUN.. 73's. VK3TI... PAUL
 The above can be cut and pasted to standard size QSL Card.

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